



Alcimededes

Men wearing sharp suits and designer shades who control the world from an underground bunker. Shoddy footage shot on a hand-held camera of an alien being dissected by a masked scientist. The Stars and Stripes flickering in the breeze next to Neil Armstrong, despite there being no atmosphere. Crop circles appearing overnight, but no tell-tale footprints nearby, leaving the farmer and his prize cow totally baffled. You can't beat a great conspiracy theory, especially over a couple of pints in a dimly-lit pub. All great stories, often with an element of credibility, but usually lacking the all-important evidence to back them up.

Step forward "leaded petrol".

Thomas Midgley Jr. was a mechanical engineer and chemist whose two great contributions to the human race were the addition of tetra-ethyl lead to petrol (*to reduce excessive ignition, also known as "knocking"*) and the development of chlorofluorocarbons (CFCs) for refrigerators.¹ A big "Thank you" to Mr Midgley for allowing us to drive safely to the corner shop for some Cornettos, only to be greeted on our return with an urgent appointment at the local melanoma clinic. Mr Midgley probably received a fair few "likes" with his revolutionary ideas, but as the evidence against him unfolded, he surely found himself being "unfriended" quite a bit.

So what is the conspiracy theory surrounding leaded petrol? Well, in recent years, there have been several studies that have demonstrated that removal of lead from petrol will result in a reduction in crime in approximately twenty years time.² This finding is apparently consistent for many crimes (including sexual assaults, violence and burglary) in most countries (and individual states in the USA) that have removed lead from petrol. The proposed explanation is that prolonged exposure to higher levels of atmospheric and environmental lead results in increased aggression and behavioural disturbances, as well as a decrease in IQ, all of which then predispose to criminal activity.³ One conspiracy theory is that the removal of lead was to promote a reduction in crime, rather than to improve the health of the population.

Now, cynics might argue that statisticians can make anything sound plausible. For example, as ice cream sales go up, so do jellyfish stings, but it's unlikely that a double scoop of raspberry ripple *causes* you to become more attractive to a passing jellyfish looking for a nibble. However, there is an obvious summer *link* going on between these otherwise unrelated facts.

Those who oppose the lead theorists accept that there is a link between the figures, with an approximately fifteen to twenty year lag between the removal of lead from petrol and a reduction in crime, but that there are other far more important social factors at play such as poor housing, dysfunctional family life and education failure. Indeed, a statistical analysis by Fergusson et al. (2008) suggested that over-exposure to lead probably contributed less

than 1% to the increased risk of criminality.⁴ So, to exploit that over-used phrase that creeps into almost every research paper these days: "More research is required".

And what became of Mr Midgley? Sadly, he spent his twilight years in poor general health, which was apparently related to years of excessive lead exposure. In addition, he spent his final year bed-bound in hospital after contracting polio. Whilst there, he unleashed his ingenuity to devise an elaborate rope and pulley system to help him move around his bed. Unfortunately, he became entangled in the ropes, thus causing his demise by accidental strangulation.

That was in 1944, when aged just 55. Viruses, ropes, prolonged lead exposure, accidental suicide. Mmmgh, sounds like another conspiracy theory brewing ...

Consent surrounding sexual assault remains a highly contentious area as it usually boils down to one word against another. A recent case in Canada has twisted the consent issue even further. A Canadian man was found guilty of sexual assault after he was proven to have pierced his condoms prior to sexual intercourse with his partner. He had apparently wanted her to become pregnant to strengthen their relationship.

Despite an appeal to the Supreme Court in 2014, Craig Jaret Hutchinson's original conviction from a lower Court in 2006 was upheld and he was sentenced to eighteen months imprisonment.⁵ The seven justices who presided over the appeal unanimously agreed that, as his partner was unaware of his activities, she was unable to make an informed choice regarding sexual intercourse or the risk of pregnancy. Indeed, his former partner had an abortion after becoming pregnant as a result of his actions.

Another "seminal case" making the headlines is that of the UK's High Court ruling in favour of Ms Beth Warren, who had applied for the right to have her dead husband's semen frozen for longer than the currently-allowed limits established by the Human Fertility and Embryology Authority (HFEA).⁶ Mrs Justice Hogg decreed that it was unfair for Ms Warren to be placed on a restricted timescale for her to conceive using her dead husband's semen: he had died in 2012 from cancer and the HFEA had argued that any of his unused semen should be destroyed by April 2015, as he had not been able to provide consent after his death. The ruling now allows for the semen to be stored until April 2060. Unsurprisingly, the Human Rights Act 1998 made an appearance in this ruling, with Article 3 ("Right to life") and Article 8 ("Right to a family life") being cited in the judgement.

The HFEA had initially proposed an appeal to this case, but then decided against such action. Instead, they have announced that they will be writing to fertility clinics to emphasise the importance

of written consent and the clear documentation of each individual patient's wishes.⁷

A recent report by Her Majesty's Inspectorate of Constabulary (HMIC) into the police handling of domestic violence has proven to be highly critical of current police practice across the land. The report, "Everyone's Business", was commissioned in September 2013 and considered data from all 43 police forces in England and Wales.⁸ It was published in March 2014 and provided Home Secretary Theresa May with some ammunition with which to go on the offensive against her police colleagues.

The main findings were that domestic violence was not given the priority over other cases that was previously promised, that the initial investigation by attending officers was often lacking in detail and quality, and that supervision of such officers was often lacking. HMIC has outlined recommendations to deal with its findings.

Figures released from NHS Blood and Transplant reveal that organ donation has continued to increase, resulting in the highest number of organ donations ever.⁹ In 2013, there were 1323 people who donated their organs after death, compared with 1164 the previous year. This meant that nearly 3500 people received

donated organs in 2013. In addition, the rate of agreement from families to donate increased by 2.1%–58.6%. NHSBT hopes to achieve an 80% agreement rate by 2020.

Despite these encouraging statistics, current figures also confirm that approximately three people are dying every day in the UK in need of a transplant.

References

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